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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,586	11/30/2000	Michael Kock	49100	5846

7590 09/24/2002

Keil & Weinkauf
1101 Connecticut Avenue NW
Washington, DC 20036

EXAMINER
CHEN, LIPING

ART UNIT	PAPER NUMBER
1632	

DATE MAILED: 09/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/701,586	Applicant(s) KOCK ET AL.	
	Examiner Liping Chen	Art Unit 1632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-32* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Sequence Compliance

This application fails to comply with requirement of 37 CFR 1.821-1.825 for the reason(s) set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures.

This application refers to general sequence motifs:

1) $PX_n(S/T)GX_3GKGIYFA$, $(S/T)XGLR(I/V)XPX_n(S/T)GX_3GKGIYFA$

2) $LLWHG(S/T)X_7IL(S/T)XGLR(I/V)$ $XPX_n(S/T)GX_3GKGIYFAX_3SKSAXY$

3) $LX_9NX_2YX_2QLLX(D/E)X_{10/11}WGRVG$, $AX_3FXKX_4KTXNXWX_5FX_3PXK$

4) $QXL(I/L)X_2IX_9MX_{10}PLGKLX_3QIX_6L$, FYTXIPHXFGX$_3$PP, or $KX_3LX_2LXDIEXAX_2L$

However, no CRF or paper has been received. Applicant must comply with the requirements of the sequence rules (37 CFR 1.821-1.825).

Election/Restriction

Lack of unity is required under 35 U.S.C. 121 and 372. This application contains the following inventions or goups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

I. Claims 1-4, drawn to a poly(ADP-ribose) polymerase (PARP) homolog containing a functional NAD^+ binding domain but without zinc finger sequence motif of the general formula.

II. Claims 5, drawn to a binding partner for PARP homologs, which is an antibody.

III. Claims 5, drawn to a binding partner for PARP homologs, which is a protein-like compound.

IV Claims 5, 31 and 32, drawn to a binding partner for PARP homologs, which is a low molecular weight effector, and a method of using the PARP binding partners for the diagnosis of pathological states.

V. Claims 6-10, drawn to a nucleic acid encoding at least one PARP homolog, an expression cassette, a recombinant vector, and a recombinant microorganism comprising at least one recombinant vector.

VI. Claim 11, drawn to a transgenic mammal comprising at least one recombinant vector.

VII. Claim 12, drawn to PARP-deficient eukaryotic cell or a PARP-deficient mammal.

VIII. Claims 13-22, a method of in vitro detection for PARP inhibitor using PARP homolog.

IX. Claim 23, drawn to a method for in vitro screening binding partners for a PARP molecule.

X. Claim 24 and 27, drawn to a method for the qualitative or quantitative determination of nucleic acids encoding a PARP homolog.

XI. Claim 25 and 26, drawn to a method for the qualitative or quantitative determination of a PARP homolog.

XII. Claim 28, drawn to a method for determining the efficacy of PAPR effectors.

XIII. Claim 29, drawn to a gene therapy composition comprising an antisense nucleic acid against a coding nucleic acid which encodes a PARP homolog.

XIV. Claim 30, drawn to a pharmaceutical composition comprising at least one PARP protein.

XV. Claims 31 and 32, drawn to a method of using low molecular weight PAPR binding partners for therapy.

This application contains claims directed to more than one invention. These inventions are:

1) $PX_n(S/T)GX_3GKGIYFA$, $(S/T)XGLR(I/V)XPX_n(S/T)GX_3GKGIYFA$

$LLWHG(S/T)X_7IL(S/T)XGLR(I/V)$ $XPX_n(S/T)GX_3GKGIYFAX_3SKSAXY$

2) $LX_9NX_2YX_2QLLX(D/E)X_{10/11}WGRVG$, $AX_3FXKX_4KTXNXWX_5FX_3PXK$

$QXL(I/L)X_2IX_9MX_{10}PLGKLX_3QIX_6L$, $FYTXIPHXFGX_3PP$, or $KX_3LX_2LXDIEXAX_2L$

3) SEQ ID NO:1-10.

These are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1. They are different inventions because they are different sequences derived from different genes and have different chemical structures, physical properties and biological functions. Upon election of a group, applicant is required to select one sequence for examination practice.

The inventions listed as Groups I-XV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I encompasses a PARP homolog and a method of in vitro detection for PARP inhibitor. Group II-XV are directed to different products or methods that require different special technical features as summarized as follows: Group II-VII, XIII and XIV are directed to different products as a PARP binding partner as an antibody, a PARP binding partner as a protein-like compound, a PARP binding partner as a low molecular weight effector, a microorganism comprising a PARP homolog, a transgenic mammal comprising PARP homolog, a PARP-deficient eukaryotic cell or a PARP-deficient mammal, a gene therapy composition comprising an antisense nucleic acid against a nucleic acid encoding PAPR homolog, or a pharmaceutical composition comprising PARP protein, respectively; Groups IX-XII and XV are directed to mutually exclusive methods, each method require specific technique feature other than the technique used in Group I. Moreover, the PARP homolog, which has a functional NAD^+ binding domain but no zinc finger sequence motif of the general formula of $CX_2CM_mHX_2C$ is anticipated by Lepiniec et al. (FEBS 364:103-108, 1995). Thus, Groups I-XV lack a common special technical feature. Further, 37 CFR 1.475 does not provide for multiple independent products, methods of manufacture and methods of use (37 CFR 1.475(d). Therefore, The inventions listed as Groups I-XV do not relate to a single general inventive concept under PCT Rule 13.1.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).)

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liping Chen, whose telephone number is (703) 305-4842. The examiner can normally be reached on Monday through Friday from 8:00 to 5:00 (Eastern Standard Time). Should the examiner be unavailable, inquiries should be directed to Deborah Reynolds, Supervisory Primary Examiner of Art Unit 1632, at (703) 305-4051. Any administrative or procedural questions should be directed to Pauline Farrier, Patent Analyst, at (703) 305-2758. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center number is (703) 308-8724.

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1632.

Liping Chen, Ph.D.
Patent Examiner
Group 1632
September 5, 2002

SHIN-LIN CHEN
PATENT EXAMINER

Application No.:_____

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

☑ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).

☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).

☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).

☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."

☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).

☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable from of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).

☐ 7. Other: _____

Applicant Must Provide:

☑ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".

☑ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.

☑ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216
For CRF Submission Help, call (703) 308-4212
PatentIn Software Program Support
Technical Assistance.....703-287-0200
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